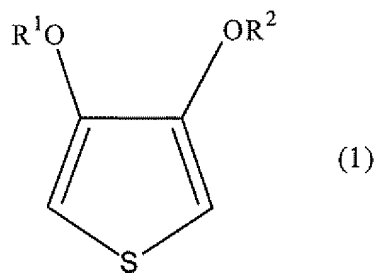


### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application.

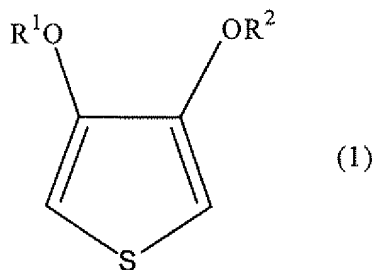
Claims 1 - 6 (Cancelled)

Claim 7 (Previously presented) A method for producing an aqueous dispersion containing a complex of a poly(3,4-alkylenedioxythiophene) and a polyanion comprising: polymerizing a 3,4-alkylenedioxythiophene represented by formula (1):



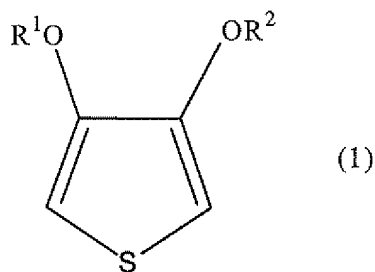
wherein R<sup>1</sup> and R<sup>2</sup> together form a C<sub>1-4</sub>-alkylene group which is optionally substituted, wherein the polymerization is performed in the presence of the polyanion by using peroxodisulfuric acid as an oxidizing agent in an aqueous solvent and wherein the pH during polymerization is 1.5 or less.

Claim 8 (Previously presented): A method for producing an aqueous dispersion containing a complex of poly(3,4-dialkylenedioxythiophene) and a polyanion comprising: polymerizing a 3,4-alkylenedioxythiophene represented by formula (1):



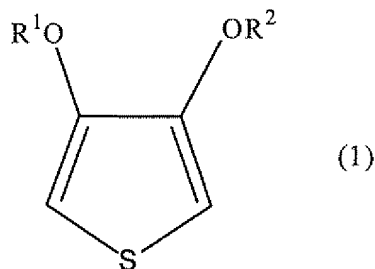
wherein  $R^1$  and  $R^2$  together form a  $C_{1-4}$ -alkylene group which is optionally substituted, and wherein the polymerization is performed in the presence of the polyanion by using peroxodisulfuric acid as an oxidizing agent in an aqueous solvent, in which an acid selected from the group of water-soluble inorganic acids and water-soluble organic acids is added so as to lower pH of the resultant reaction mixture to 1.5 or less.

Claim 9 (Previously presented): A method for producing an aqueous dispersion containing a complex of a poly(3,4-dialkoxythiophene) and a polyanion comprising:  
polymerizing a 3,4-dialkoxythiophene represented by formula (1):



wherein  $R^1$  and  $R^2$  are  $C_{1-4}$ -alkyl groups, wherein the polymerization is performed in the presence of the polyanion by using peroxodisulfuric acid as an oxidizing agent in an aqueous solvent and wherein the pH during polymerization is 1.5 or less.

Claim 10 (Previously presented) A method for producing an aqueous dispersion containing a complex of poly(3,4-dialkoxythiophene) and a polyanion comprising:  
polymerizing a 3,4-dialkoxythiophene represented by formula (1):



wherein R<sup>1</sup> and R<sup>2</sup> are C<sub>1-4</sub>-alkyl groups, and wherein the polymerization is performed in the presence of the polyanion by using peroxodisulfuric acid as an oxidizing agent in an aqueous solvent, in which an acid selected from the group of water-soluble inorganic acids and water-soluble organic acids is added so as to lower pH of the resultant reaction mixture to 1.5 or less.

11. (New) The method as claimed in claim 7, wherein the pH during polymerization is 1.0 or less.
12. (New) The method as claimed in claim 8, wherein the pH during polymerization is 1.0 or less.
13. (New) The method as claimed in claim 9, wherein the pH during polymerization is 1.0 or less.
14. (New) The method as claimed in claim 10, wherein the pH during polymerization is 1.0 or less.
15. (New) The method as claimed in claim 8, wherein said acid is hydrochloric, sulfuric, nitric, phosphoric, p-toluenesulfonic, benzenesulfonic methanesulfonic or trfluoromethanesulfonic.
16. (New) The method as claimed in claim 10, wherein said acid is hydrochloric, sulfuric, nitric, phosphoric, p-toluenesulfonic, benzenesulfonic methanesulfonic or trfluoromethanesulfonic.
17. (New) The method as claimed in claim 7, wherein said oxidizing agent is used in an amount from 1 to 5 equivalents with respect to one mole of the thiophene.
18. (New) The method as claimed in claim 7, wherein said oxidizing agent is used in an amount from 2 to 4 equivalents with respect to one mole of the thiophene.
19. (New) The method as claimed in claim 8, wherein said oxidizing agent is used in an amount from 1 to 5 equivalents with respect to one mole of the thiophene.
20. (New) The method as claimed in claim 8, wherein said oxidizing agent is used in an amount from 2 to 4 equivalents with respect to one mole of the thiophene.
21. (New) The method as claimed in claim 9, wherein said oxidizing agent is used in an

amount from 1 to 5 equivalents with respect to one mole of the thiophene.

22. (New) The method as claimed in claim 9, wherein said oxidizing agent is used in an amount from 2 to 4 equivalents with respect to one mole of the thiophene.
23. (New) The method as claimed in claim 10, wherein said oxidizing agent is used in an amount from 1 to 5 equivalents with respect to one mole of the thiophene.
24. (New) The method as claimed in claim 10, wherein said oxidizing agent is used in an amount from 2 to 4 equivalents with respect to one mole of the thiophene.
25. (New) The method as claimed in claim 7, wherein said solvent is water.
26. (New) The method as claimed in claim 8, wherein said solvent is water.